

DKE 9757

In the Claims:

1. (previously presented) A bun warmer apparatus for warming pre-cooked sandwich buns and the like to a desired holding temperature and then holding the buns at such holding temperature, said apparatus comprising:

a cabinet having at least one compartment therein, said compartment having a bottom wall, a top wall and opposite side walls; at least one heat source adjacent the bottom of the at least one compartment for delivering heat to buns in the compartment; and a control mechanism pre-programmed for controlling the heat source to deliver heat to the buns to warm the buns to said desired holding temperature, and then to vary the amount of heat delivered to the buns to hold the buns at said desired holding temperature.

2. (original) Apparatus as set forth in claim 1 wherein said heat source comprises a metal plate adjacent the bottom wall of the compartment and a heater for heating the metal plate.

3. (original) Apparatus as set forth in claim 2 wherein the side walls of each compartment are not heated.

4. (original) Apparatus as set forth in claim 3 wherein the top wall of each compartment is not heated.

5. (original) Apparatus as set forth in claim 1 further comprising partitions in the cabinet dividing the cabinet into a plurality of separate [, thermally isolated] holding compartments, each compartment having at least one heat source therein, and said control mechanism being adapted for controlling operation of the heat sources independent of one another whereby the temperature in each compartment may be independently controlled.

6. (original) Apparatus as set forth in claim 1 wherein said control mechanism is operable to vary the heat delivered by said at least one heat source to the buns through a duration of heating time, said duration comprising a first phase at which heat is delivered to the buns by the heat source at a first level to warm the buns to said desired holding temperature, and a second

DKE 9757

phase at which heat is delivered to the buns by the heat source at a second level different from said first level to hold the buns at said desired holding temperature.

7. (original) Apparatus as set forth in claim 6 wherein said control mechanism comprises an operator input device for selecting a type of bun to be placed in said compartment, and software for operating the heat source according to a predetermined protocol depending on the type of bun selected.

8. (original) Apparatus as set forth in claim 7 wherein said control mechanism comprises an operator display device for counting down a time remaining in said duration of heating time.

9. (original) Apparatus as set forth in claim 1 wherein said control mechanism is programmed to operate said heat source according to a predetermined protocol to vary said heat delivered to said heat source depending on the type of buns placed in the compartment.

10. (original) Apparatus as set forth in claim 9 wherein said control mechanism comprises an operator input device for selecting a type of bun to be placed in said compartment, and software for operating the heat source according to said predetermined protocol.

11. (original) Apparatus as set forth in claim 1 wherein said control mechanism comprises at least one sensor in the compartment for detecting a characteristic indicative of the temperature of the buns in the compartment, the control mechanism being responsive to signals from said sensor to vary the amount of heat delivered by the heat source.

12. (original) Apparatus as set forth in claim 11 wherein said sensor is a temperature sensor for detecting the temperature of a surface in the compartment.

13. (original) Apparatus as set forth in claim 11 wherein said sensor is operable to detect radiant energy emitted by said buns.

DKE 9757

14. (currently amended) Apparatus as set forth in claim 1 wherein said at least one heat source is operable in successive time-based cycles each comprising a first on-time interval during which the heat source is activated and a second off-time interval during which said heat source is de-activated, and wherein said control mechanism is operable to vary the amount of heat by changing the ratio of said on-time interval to the sum of said on-time and off-time intervals ~~control mechanism is operable to vary the amount of heat by activating and deactivating said at least one heat source during successive duty cycles thereby to maintain the buns in a respective compartment at a selected holding temperature for a duration of heated holding time; each duty cycle comprising a heating interval followed by a non heating interval.~~

15. (original) Apparatus as set forth in claim 1 wherein said control mechanism is operable to vary the amount of heat by increasing and decreasing the level of heat delivered by said at least one heat source without deactivating the heat source.

16. (original) Apparatus as set forth in claim 1 further comprising a cover secured to one or more of said compartment walls for covering a pan in said at least one compartment to inhibit the escape of moisture from buns in the pan.

17. (original) Apparatus as set forth in claim 15 wherein said cover floats up and down to accommodate pans having different heights placed in said at least one compartment.

18. (original) Apparatus as set forth in claim 1 wherein said cabinet has a plurality of compartments arranged side-by-side.

19. (original) Apparatus as set forth in claim 18 wherein said side-by-side compartments are sized for receiving one pan per compartment.

20. (original) Apparatus as set forth in claim 19 further comprising one pan in each of said side-by-side compartments.

DKE 9757

21. (original) Apparatus as set forth in claim 1 wherein said desired holding temperature is in the range of from about 110-150 degrees F.

22. (original) Apparatus as set forth in claim 1 wherein each compartment has a width of 8 inches or greater for receiving a one-third size steam table pan.

23. (previously presented) A bun warmer apparatus for warming pre-cooked sandwich buns and the like to a desired holding temperature and then holding the buns at such holding temperature, said apparatus comprising:

- a cabinet having a plurality of bun-holding compartments therein, each compartment having a bottom wall, a top wall and opposite side walls;

- a plurality of bun-holding pans in the compartments, one pan per compartment;

- a plurality of covers covering the pans in the compartments to inhibit the escape of moisture from the pans;

- at least one heat source in each compartment comprising a heating plate adjacent the bottom wall of the compartment and an electric heater for heating the heating plate to deliver heat to buns in the compartment; and

- a control mechanism for controlling each heat source independent of the other heat sources to deliver heat to the buns in the compartments to warm the buns to a respective desired holding temperature for each compartment, and then to vary the amount of heat delivered to the buns to hold the buns at said desired holding temperature.

24. (original) Apparatus as set forth in claim 23 wherein said control mechanism comprises an operator input device for selecting a type of bun placed in a respective compartment, and software responsive to said operator input to operate the heat source to heat the buns in said respective compartment to a pre-programmed desired holding temperature, and then to hold the buns at said pre-programmed desired holding temperature.

25. (original) Apparatus as set forth in claim 24 wherein said software is responsive to said operator input device to operate the heat source to hold the buns at said pre-programmed desired holding temperature for a pre-programmed holding duration.

DKE 9757

26. (original) Apparatus as set forth in claim 25 wherein said control mechanism comprises a display visible to an operator for counting down the time remaining in said pre-programmed holding duration.

27. (currently amended) A method of warming sandwich buns comprising the steps of: placing the buns in a compartment of bun warming apparatus for a duration of heating time; and heating the buns in the compartment by delivering heat to the buns; said heating step comprising varying the amount of heat delivered to the buns in a controlled, pre-programmed manner to warm the buns to a desired holding temperature and then to maintain the buns at said holding temperature; and inhibiting the escape of moisture from the buns during said heating step.
~~operate to increase and decrease heat delivered by the heaters in a controlled, pre-programmed manner to maintain a particular food at its ideal holding temperature~~

28. (original) A method as set forth in claim 27 wherein the buns are placed in the compartment at a temperature less than ambient temperature, and said heating step comprises delivering heat to the buns until the buns reach said desired holding temperature, and then varying the amount of heat delivered to the buns to maintain the buns at said desired holding temperature.

29. (original) A method as set forth in claim 28 further comprising sensing a characteristic indicative of the temperature of the buns in the compartment, and varying the amount of heat delivered to the buns according to said sensed characteristic.

30. (original) A method as set forth in claim 29 wherein said sensed characteristic is a temperature of a surface in said holding compartment.

31. (original) A method as set forth in claim 29 wherein said sensed characteristic is an amount of radiant energy emitted by said buns.

DKE 9757

32. (currently amended) A method as set forth in claim 27 wherein at least one heat source is operable in successive time-based cycles each comprising a first on-time interval during which the heat source is activated and a second off-time interval during which said heat source is de-activated, and wherein said control mechanism is operable to vary the amount of heat by changing the ratio of said on-time interval to the sum of said on-time and off-time intervals ~~said amount of heat is varied by activating and deactivating a source of radiant heat during successive duty cycles thereby to maintain the buns in a respective compartment at a selected holding temperature for a duration of heated holding time, each duty cycle comprising a heating interval followed by a non-heating interval.~~

33. (original) A method as set forth in claim 27 wherein said amount of heat is varied by increasing and decreasing the level of heat delivered by a source of heat without deactivating the heat source.

34. (original) A method as set forth in claim 27 wherein said inhibiting step comprises placing the buns in a pan and covering the pan.

35. (original) A method as set forth in claim 27 wherein the compartment has a pan cover affixed to one or more walls of the compartment, and wherein said inhibiting step comprises placing said buns in a pan, and placing the pan in the oven in a position in which the pan underlies the pan cover.

36. (original) A method as set forth in claim 27 wherein said desired holding temperature is in the range of from about 110-150 degrees F.

37. (original) A method as set forth in claim 27 wherein said bun warming apparatus comprises multiple compartments, and wherein said method further comprising programming said bun warming apparatus to heat the buns in each compartment to a desired holding temperature which varies depending to the type of bun placed in the compartment.

DKE 9757

38. (original) A method as set forth in claim 27 wherein said bun warming apparatus comprises an operator display, and wherein said method comprises counting down on said operator display said duration of heating time.